

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-34 (Canceled).

Claim 35 (Withdrawn): A DNA molecule comprising a sequence selected from the group consisting of

(A) a sequence according to SEQ ID NO 1 with an open reading frame from base pair 211 to base pair 1740,

(B) a sequence which is at least 50% homologous with the sequence according to SEQ ID NO 1, and

(C) a sequence which hybridizes with the sequence according to SEQ ID NO 1 under stringent conditions,

wherein said sequence (A), (B) and (C) codes for a plant protein having fucosyl transferase activity.

Claim 36 (Withdrawn): A DNA molecule comprising a sequence complementary to a sequence selected from the group consisting of

(A) a sequence according to SEQ ID NO 1 with an open reading frame from base pair 211 to base pair 1740,

(B) a sequence which is at least 50% homologous with the sequence according to SEQ ID NO 1, and

(C) a sequence which hybridizes with the sequence according to SEQ ID NO 1 under stringent conditions,

wherein said sequence of (A), (B) and (C) codes for a plant protein having fucosyl transferase activity.

Claim 37 (Withdrawn): The DNA molecule according to claim 35 coding for a protein having GlcNAc- α 1,3-fucosyl transferase activity.

Claim 38 (Withdrawn): The DNA molecule according to claim 35 coding for a protein having core- α 1,3-fucosyl transferase activity.

Claim 39 (Withdrawn): The DNA molecule according to claim 35, wherein said sequence is at least 70-80% homologous with the sequence according to SEQ ID NO 1.

Claim 40 (Withdrawn): The DNA molecule according to claim 35, wherein said sequence is at least 95% homologous with the sequence according to SEQ ID NO 1.

Claim 41 (Withdrawn): The DNA molecule according to claim 35 comprising between about 2150 and about 2250 base pairs.

Claim 42 (Withdrawn): The DNA molecule according to claim 35 comprising about 2198 base pairs.

Claim 43 (Withdrawn): A DNA molecule comprising a sequence selected from the group consisting of

- a sequence according to SEQ ID NO 3,
- a sequence which is at least 85% homologous with the sequence according to SEQ ID NO 3, and
- a sequence which hybridizes with the sequence according to SEQ ID NO 3 under stringent conditions.

Claim 44 (Withdrawn): A DNA according to claim 43, wherein the sequence is at least 95% homologous with the sequence according to SEQ ID NO 3.

Claim 45 (Withdrawn): A DNA molecule comprising a partial sequence of said DNA molecule according to claim 35, wherein said sequence is at least 80% homologous with said SEQ ID NO 1 and has a size of 20 to 200 base pairs.

Claim 46 (Withdrawn): The DNA molecule according to claim 45, said molecule being covalently associated with a detectable marker substance.

Claim 47 (Withdrawn): A biologically functional vector comprising said DNA molecule according to claim 35.

Claim 48 (Withdrawn): A biological vector comprising parts of said DNA molecule according to claim 35 of different length, said parts having at least 20 base pairs.

Claim 49 (Currently Amended): A biologically functional vector comprising ~~said DNA molecule according to claim 35~~

a DNA molecule comprising a sequence selected from the group consisting of

(A) a sequence according to SEQ ID NO 1 with an open reading frame from base pair 211 to base pair 1740,

(B) a sequence which is at least 50% homologous with the sequence according to SEQ ID NO 1, and

(C) a sequence which hybridizes with the sequence according to SEQ ID NO 1 under stringent conditions,

wherein said sequence (A), (B) and (C) codes for a plant protein having fucosyl transferase activity,

wherein said DNA molecule is inversely orientated with respect to the ~~a~~ promoter promoter.

Claim 50 (Currently Amended): A biologically functional vector comprising different length parts of ~~said DNA molecule according to claim 35~~ a DNA molecule comprising a sequence selected from the group consisting of

(A) a sequence according to SEQ ID NO 1 with an open reading frame from base pair 211 to base pair 1740,

(B) a sequence which is at least 50% homologous with the sequence according to SEQ ID NO 1, and

(C) a sequence which hybridizes with the sequence according to SEQ ID NO 1 under stringent conditions,

wherein said sequence (A), (B) and (C) codes for a plant protein having fucosyl transferase activity of different lengths,

wherein said DNA molecule parts are inversely orientated with respect to the a promoter promoter.

Claim 51 (Currently Amended): A DNA molecule coding for a ribozyme having two sequence sections,

wherein each sequence section has a length of at least 10 to 15 base pairs, and

is complementary to a sequence section of ~~said DNA molecule according to claim 35,~~ a DNA molecule comprising a sequence selected from the group consisting of

(A) a sequence according to SEQ ID NO 1 with an open reading frame from base pair 211 to base pair 1740,

(B) a sequence which is at least 50% homologous with the sequence according to SEQ ID NO 1, and

(C) a sequence which hybridizes with the sequence according to SEQ ID NO 1 under stringent conditions,

wherein said sequence (A), (B) and (C) codes for a plant protein having fucosyl transferase activity, and

wherein said ribozyme complexes and cuts the mRNA transcribed by a natural GlcNAc- α 1,3-fucosyl transferase DNA molecule.

Claim 52 (Previously Presented): A biologically functional vector comprising said DNA molecule according to claim 51.

Claim 53 (Withdrawn): A method of preparing a cDNA comprising a DNA molecule according to claim 35 comprising

isolating RNA from cells selected from the group consisting of insect cells, plant cells and hypocotylous cells, and

adding a reverse transcriptase and primers thereto to effect a reverse transcription with said RNA and prepare said cDNA.

Claim 54 (Withdrawn): A method of cloning a GlcNAc- α 1,3-fucosyl transferase comprising

cloning said DNA molecule according to claim 35 into a vector, transfecting said vector into a host,

selecting and amplifying transfected host cells, wherein said host cell lines express the active GlcNAc- α 1,3-fucosyl transferase.

Claim 55 (Withdrawn): A method of preparing recombinant hosts selected from the group consisting of host cells, plant cells, insect cells, plants and insects, wherein the production of GlcNAc- α 1,3-fucosyl transferase is suppressed or inhibited, comprising

inserting into a recombinant host, a biologically functional vector which comprises a DNA molecule according to claim 35, wherein said DNA sequence comprises a deletion, insertion or substitution mutation.

Claim 56 (Withdrawn): A method of preparing recombinant hosts selected from the group consisting of host cells, plant cells, insect cells, plants and insects wherein the production of GlcNAc- α -1,3-fucosyl transferase is suppressed or inhibited, comprising

inserting into a recombinant host, a biologically functional vector which comprises parts of said DNA molecule according to claim 35 of different length, said parts having at least 20 base pairs, wherein said DNA sequence comprises a deletion, insertion or substitution mutation.

Claim 57 (Currently Amended): A method of preparing recombinant hosts selected from the group consisting of host cells, plant cells, insect cells, plants and insects wherein the production of GlcNAc- α -1,3-fucosyl transferase is suppressed or inhibited, comprising

inserting into a recombinant host, a biologically functional vector which comprises

a DNA molecule ~~according to claim 35~~, comprising a sequence selected from the group consisting of

(A) a sequence according to SEQ ID NO 1 with an open reading frame from base pair 211 to base pair 1740,

(B) a sequence which is at least 50% homologous with the sequence according to SEQ ID NO 1, and

(C) a sequence which hybridizes with the sequence according to SEQ ID NO 1 under stringent conditions,

wherein said sequence (A), (B) and (C) codes for a plant protein having fucosyl transferase activity,

wherein said DNA sequence is inversely orientated with respect to the a promoter.

Claim 58 (Currently Amended): A method of preparing recombinant hosts selected from the group consisting of host cells, plant cells, insect cells, plants and insects wherein the production of GlcNAc- α -1,3-fucosyl transferase is suppressed or inhibited, comprising

inserting into a recombinant host, a biologically functional vector which comprises different length parts of said DNA molecule according to claim 35 of different length, a DNA molecule comprising a sequence selected from the group consisting of

(A) a sequence according to SEQ ID NO 1 with an open reading frame from base pair 211 to base pair 1740,

(B) a sequence which is at least 50% homologous with the sequence according to SEQ ID NO 1, and

(C) a sequence which hybridizes with the sequence according to SEQ ID NO 1 under stringent conditions,

wherein said sequence (A), (B) and (C) codes for a plant protein having fucosyl transferase activity,

said parts having at least 20 base pairs, wherein said DNA sequence is inversely orientated with respect to ~~the~~ a promoter.

Claim 59 (Canceled).

Claim 60 (Previously Presented): A method of preparing recombinant hosts selected from the group consisting of host cells, plant cells, insect cells, plant tissues, plants and insects wherein the production of GlcNAc- α -1,3-fucosyl transferase is suppressed or inhibited, comprising

inserting into a recombinant host, a biologically functional vector which comprises a DNA molecule according to claim 51.

Claim 61 (Currently Amended): A method of preparing recombinant hosts selected from the group consisting of host cells, plant cells, insect cells, plant tissues, plants and insects, comprising

inserting a DNA molecule ~~according to claim 35~~ into the genome of said host at the position of a non-mutated, homologous sequence, said DNA molecule comprising a sequence selected from the group consisting of

(A) a sequence according to SEQ ID NO 1 with an open reading frame from base pair 211 to base pair 1740,

(B) a sequence which is at least 50% homologous with the sequence according to SEQ ID NO 1, and

(C) a sequence which hybridizes with the sequence according to SEQ
ID NO 1 under stringent conditions,

wherein said sequence (A), (B) and (C) codes for a plant protein having
fucosyl transferase activity, and

wherein said DNA sequence comprises a deletion, insertion or substitution
mutation.

Claim 62 (Previously Presented): A recombinant host prepared according to
said method according to claim 60, wherein its GlcNAc- α 1,3-fucosyl transferase
production is suppressed.

Claim 63 (Previously Presented): A recombinant host prepared according to
said method according to claim 60, wherein its GlcNAc- α 1,3-fucosyl transferase
production is completely inhibited.

Claim 64 (Withdrawn): A recombinant host prepared according to said
method according to claim 61, wherein its GlcNAc- α 1,3-fucosyl transferase
production is suppressed.

Claim 65 (Withdrawn): A recombinant host prepared according to said
method according to claim 61, wherein its GlcNAc- α 1,3-fucosyl transferase
production is completely inhibited.

Claim 66 (Withdrawn): A peptide nucleic acid molecule comprising a base sequence complementary to the sequence of said DNA molecule according to claim 35.

Claim 67 (Withdrawn): A peptide nucleic acid molecule comprising a partial sequence of a base sequence complementary to the sequence of said DNA molecule according to claim 35.

Claim 68 (Withdrawn): A peptide nucleic acid molecule comprising a base sequence corresponding to the sequence of said DNA molecule according to claim 35.

Claim 69 (Withdrawn): A peptide nucleic acid molecule comprising a partial sequence of the sequence of said DNA molecule according to claim 35.

Claim 70 (Withdrawn): A method of producing a host selected from the group consisting of plants, insects, cells, plant tissues, plant cells and insect cells having blocked expression of GlcNAc- α 1,3-fucosyl transferase, comprising inserting into said host a peptide nucleic acid molecule according to claim 66.

Claim 71 (Withdrawn): The method according to claim 70, wherein said expression is blocked at the transcription or translation level.

Claim 72 (Withdrawn): A method of producing a host selected from the group consisting of plants, insects, cells, plant tissues, plant cells and insect cells having blocked expression of GlcNAc- α 1,3-fucosyl transferase, comprising
inserting into said host a peptide nucleic acid molecule according to claim 66.

Claim 73 (Withdrawn): The method according to claim 72, wherein said expression is blocked at the transcription or translation level.

Claim 74 (Withdrawn): A method of producing a host selected from the group consisting of plants, insects, cells, plant tissues, plant cells and insect cells having blocked expression of GlcNAc- α 1,3-fucosyl transferase, comprising
inserting into said host a peptide nucleic acid molecule according to claim 68.

Claim 75 (Withdrawn): The method according to claim 74, wherein said expression is blocked at the transcription or translation level.

Claim 76 (Previously Presented): A method of producing recombinant glycoprotein, comprising
transfecting a recombinant host according to claim 62, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 77 (Previously Presented): A method of producing recombinant glycoprotein, comprising

transfecting a recombinant host according to claim 63, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 78 (Withdrawn): A method of producing recombinant glycoprotein, comprising

transfecting a recombinant host according to claim 64, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 79 (Withdrawn): A method of producing recombinant glycoprotein, comprising

transfecting a recombinant host according to claim 65, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 80 (Withdrawn): A method of producing recombinant glycoprotein, comprising

transfecting a recombinant host, which is prepared according to the method of claim 70, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 81 (Withdrawn): A method of producing recombinant glycoprotein, comprising

transfecting a recombinant host, which is prepared according to the method of claim 72, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 82 (Withdrawn): A method of producing recombinant glycoprotein, comprising

transfecting a recombinant host, which is prepared according to the method of claim 74, with a gene that expresses said glycoprotein, and ,
expressing said recombinant glycoprotein.

Claim 83 (Previously Presented): A method of producing human recombinant glycoprotein, comprising

transfecting a recombinant host according to claim 62, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 84 (Previously Presented). A method of producing human recombinant glycoprotein, comprising

transfecting a recombinant host according to claim 63, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 85 (Previously Presented): A method of producing human recombinant glycoprotein, comprising

transfecting a recombinant host according to claim 64, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 86 (Previously Presented): A method of producing human recombinant glycoprotein, comprising

transfecting a recombinant host according to claim 65, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 87 (Withdrawn): A method of producing human recombinant glycoprotein, comprising

transfecting a recombinant host, which is prepared according to the method of claim 70, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 88 (Withdrawn): A method of producing human recombinant glycoprotein, comprising

transfecting a recombinant host, which is prepared according to the method of claim 72, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 89 (Withdrawn): A method of producing human recombinant glycoprotein, comprising

transfecting a recombinant host, which is prepared according to the method of claim 74, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 90 (Withdrawn): A method of selecting DNA molecules coding for a GlcNAc- α 1,3-fucosyl transferase comprising

(A) adding to a sample DNA molecules according to claim 46, and
(B) selecting molecules which bind to said DNA molecules of (A), wherein the molecules which bind code for a GlcNAc- α 1,3-fucosyl transferase.

Claim 91 (Withdrawn): The method according to claim 90, wherein said sample comprises genomic DNA of a plant.

Claim 92 (Withdrawn): The method according to claim 90, wherein said sample comprises genomic DNA of an insect organism.

Claim 93 (Withdrawn): DNA molecules coding for a GlcNAc- α 1,3-fucosyl transferase selected according to a method according to claim 90, and isolated from said sample.

Claim 94 (Withdrawn): DNA molecules coding for a GlcNAc- α 1,3-fucosyl transferase selected according to a method according to claim 91, and isolated from said sample.

Claim 95 (Withdrawn): DNA molecules coding for a GlcNAc- α 1,3-fucosyl transferase selected according to a method according to claim 92, and isolated from said sample.

Claim 96 (Withdrawn): A DNA molecule comprising a sequence according to SEQ ID NO 1 with an open reading frame from base pair 211 to base pair 1740.

Claim 97 (Withdrawn): A DNA molecule which is at least 70-80% homologous with the sequence according to SEQ ID NO 1, and codes for a plant protein having fucosyl transferase activity.

Claim 98 (Withdrawn): A DNA molecule which is at least 95% homologous with the sequence according to SEQ ID NO 1, and codes for a plant protein having fucosyl transferase activity.

Claim 99 (Withdrawn): A DNA molecule which hybridizes with the sequence according to SEQ ID NO 1 under stringent conditions, and codes for a plant protein having fucosyl transferase activity.

Claim 100 (Withdrawn): A DNA molecule comprising a sequence complementary to a sequence according to SEQ ID NO 1 with an open reading frame from base pair 211 to base pair 1740.

Claim 101 (Withdrawn): A DNA molecule comprising a sequence complementary to a sequence which

(A) is at least 70-80% homologous with the sequence according to SEQ ID NO 1, and

(B) codes for a plant protein having fucosyl transferase activity.

Claim 102 (Withdrawn): A DNA molecule comprising a sequence complementary to a sequence which

(A) is at least 95% homologous with the sequence according to SEQ ID NO 1, and

(B) codes for a plant protein having fucosyl transferase activity.

Claim 103 (Withdrawn): A DNA molecule comprising a sequence complementary to a sequence which

(A) hybridizes with the sequence according to SEQ ID NO 1 under stringent conditions, and

(B) codes for a plant protein having fucosyl transferase activity.

Claim 104 (Withdrawn): A DNA molecule comprising a sequence according to SEQ ID NO 3.

Claim 105 (Withdrawn): A DNA molecule comprising a sequence which is at least 85% homologous with a sequence according to SEQ ID NO 3.

Claim 106 (Withdrawn): A DNA molecule comprising a sequence which hybridizes with the sequence according to SEQ ID NO 3 under stringent conditions.

Claim 107 (Withdrawn): A DNA molecule comprising a sequence which is at least 95% homologous with a sequence according to SEQ ID NO 3.

Claim 108 (Previously Presented): A recombinant host prepared according to said method according to claim 57, wherein its GlcNAc- α 1,3-fucosyl transferase production is suppressed.

Claim 109 (Previously Presented): A recombinant host prepared according to said method according to claim 57, wherein its GlcNAc- α 1,3-fucosyl transferase production is completely inhibited.

Claim 110 (Previously Presented): A recombinant host prepared according to said method according to claim 58, wherein its GlcNAc- α 1,3-fucosyl transferase production is suppressed.

Claim 111 (Previously Presented): A recombinant host prepared according to said method according to claim 58, wherein its GlcNAc- α 1,3-fucosyl transferase production is completely inhibited.

Claim 112 (Previously Presented): A method of producing recombinant glycoprotein, comprising

transfecting a recombinant host according to claim 108, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 113 (Previously Presented): A method of producing recombinant glycoprotein, comprising
transfecting a recombinant host according to claim 109, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 114 (Previously Presented): A method of producing recombinant glycoprotein, comprising
transfecting a recombinant host according to claim 110, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 115 (Previously Presented): A method of producing recombinant glycoprotein, comprising
transfecting a recombinant host according to claim 111, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 116 (Previously Presented): A method of producing human recombinant glycoprotein, comprising

transfecting a recombinant host according to claim 108, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 117 (Previously Presented): A method of producing human recombinant glycoprotein, comprising
transfecting a recombinant host according to claim 109, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 118 (Previously Presented): A method of producing human recombinant glycoprotein, comprising
transfecting a recombinant host according to claim 110, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.

Claim 119 (Previously Presented): A method of producing human recombinant glycoprotein, comprising
transfecting a recombinant host according to claim 111, with a gene that expresses said glycoprotein, and
expressing said recombinant glycoprotein.